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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,433	08/27/2008	Kozo Matsumoto	200600496-4	5821

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
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EXAMINER

NGUYEN, THINH H

ART UNIT	PAPER NUMBER
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2861

NOTIFICATION DATE	DELIVERY MODE
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05/14/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/585,433	Applicant(s) MATSUMOTO ET AL.	
	Examiner Thinh H. Nguyen	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/7/06; 8/27/08; 8/3/09</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Preliminary Amendment Received

1. Acknowledgement is made of the receipt of the Preliminary Amendments filed on July 7, 2006.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Regarding claim 1, the recitation of "these" is unclear as written, and thus it can not be ascertained which it being referred.

Regarding claim 5, the recitation of "piping laid" is not positively recited, and thus not well defined in this claim.

4. Claim 2-9 are recites the following limitations that lack antecedent basis:

"the head chip" (claim 2, line 2); "the slit datum plane..." (claim 2, line 3);

"the positioning plate surface" (claim 3, line 3); "the positioning plate datum" (claim 3, last line);

"the structure component" (claim 4, line 2);

"the canal" (claim 5, line 2);

"the piezoelectric" (claim 9, line 2); "the electrical drive" (claim 9, line 3)

Claims 6-8 are rejected by virtue of their dependency on the preceding claim(s).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2, 4 are rejected under 35 U.S.C. § 102(b) as being anticipated by prior of record to JP 2003-89195. (herein after '195)

Re claims 1, 2, and 4, with reference to figs. 2, 3, '195 discloses the instant claimed inkjet recording head equipped with multiple edge shooter type head units (8) with a head pitch formed such that the nozzle discharge surfaces of the nozzles that discharge ink are distributed in a straight line at regular intervals in a continuous array and positioning plates (12; par.39) that fix the positions of multiple head units such that these positioning plates are distributed in parallel rows that slope with respect to the line array direction of the multiple head units, and the nozzle intervals in the direction of 2 nozzle line arrays adjacent to the nozzle injection surfaces form the slope angle that corresponds to a given resolution; wherein the positioning plate is equipped with a slit (see hole 13) that wedges and pushes the head chip of the head unit in such a fashion that the airtight bonding of the slit datum plane of the positioning plate and the surface of the head unit's head chip allows the position of the head unit to be fixed in relation to the positioning plate; a beam (see holding frame 14) comprising the structural

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component that stretches across the positioning plate and is arrayed with and holds multiple rows of head units.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over '195 in view of prior of record to JP 55152066. (herein after '066)

'195 discloses elements of the instant claimed subject matter as noted above with the exception of a sealant that is inserted to ensure an airtight seal between the head units and the positioning plate.

'066 discloses seal (5) inserted between the head unit and the positioning plate to ensure airtight.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the seal in '195 to achieve airtight.

9. Claims 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over '195 in view of prior of record to JP 60247565. (herein after '565)

'195 discloses elements of the instant claimed subject matter as noted above with the exception of an internal electrical drive circuit for activating the piezoelectric

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element inside the head unit, 10 connectors connected to the electrical drive circuit, and a motherboard where a connector is directly connected to each of the multiple head units arranged in rows.

'565 discloses electrical drive circuit (10) for activating the piezoelectric element inside the head unit, 10 connectors connected to the electrical drive circuit, and a motherboard (20) where a connector is directly connected to each of the multiple head units arranged in rows

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the control circuit used in '. The reasons for doing such would have been to enable controlling the piezoelectric elements inside the printhead.

Pertinent Prior art

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S Patent 7,311,378, to Fujimori et al.

Patent Application Information Retrieval (PAIR)

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Contact Information

12. Any inquiry concerning this communication should be directed to examiner Thinh Nguyen at telephone number (571) 272-2257. The examiner can generally be reached Mon-Fri from 8:30A – 5:00P. The official fax phone number for the organization is (571) 273-8300. The examiner supervisor, Matthew Luu, can also be reached at (571) 272-7663.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-1782.

/Thinh H Nguyen/

Primary Examiner, Art Unit 2861

May 12, 2010